IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicants: Ebling et al.

Examiner: M. DeMicco

Serial No: 09/529,184

Group Art Unit: 2697

Filed: April 7, 2000

Docket: RCA 88,759 (156-101)

For: SYSTEM FOR FORMATTING AND PROCESSING MULTIMEDIA PROGRAM DATA AND PROGRAM GUIDE INFORMATION

Mail Stop Appeal Brief-Patents
Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Applicant appeals the status of Claims 19-21 and 49-57 as presented in response to the

final Office Action dated July 7, 2004 pursuant to the Notice of Appeal filed on October 6, 2004

and submits this appeal brief.

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1. **Real Party in Interest**

    The real party in interest is THOMSON LICENSING INC., the assignee of the entire

right title and interest in and to the subject application by virtue of an assignment recorded with

the Patent Office on April 7, 2000 at reel/frame 010824/0289.

2. **Related Appeals and Interferences**

    None.

3. **Status of Claims**

    Claims 1-18 and 22-48 have been cancelled. Claims 19-21 and 49-57 are pending, stand

rejected and are under appeal. A copy of the Claims 19-21 and 49-57 is presented in Appendix I.

4. **Status of Amendments**

    An Amendment under 37 CFR §1.111 mailed to the PTO on April 13, 2004 in response

to the non-final Office Action dated February 11, 2004 was entered. No amendments were filed

subsequent to the mailing of the final Office Action dated July 7, 2004.

5. **Summary of the Invention**

    The present invention is directed to a "system for formatting and processing multimedia

program data and program guide information" (Title). Claims 19-21 are directed to a method for

decoding packetized program information to provide data content of a program. Claims 19-21,

inter alia, novelly identify, in packetized program information, partition tables having program

specific data partitioned therein and a control table for acquiring and re-assembling the

partitioned program specific data disposed in the plurality of partition tables, and form a program guide for display using the tables. Claims 49-57 are directed to a method for providing packetized program information to provide data content of a program. Claims 49-57, *inter alia*, novelly partition program specific data into a plurality of partition tables, generate a control table for acquiring and re-assembling the program specific data disposed in the plurality of partition tables, and transmit the tables in packets for subsequent use in forming a program guide.

6.   **Issues**

1)   Whether Claims 19-21 and 49-57 are unpatentable under 35 U.S.C. §103 over U.S. Patent No. 5,818,935 to Maa in view of U.S. Patent No. 5,600,378 to Wasilewski.

7.   **Grouping of Claims**

Claims 19, 20, and 21 stand or fall with Claim 19. Claims 49-57 stand or fall with Claim 49.

8.   Argument

A.   Introduction

The present invention provides a novel solution to the problems of decoding and providing packetized program information to provide data content of a program. "This data structure advantageously enables multimedia objects and table information located at a plurality of different remote and local sources to be acquired at a decoder and assembled to product an individual program and program guide for display to a user" (Applicants' specification, p. 7, lines 12-16). "[T]he data structure offers flexibility and adaptability advantages and provides a comprehensive mechanism for conveying a multiplicity of distributed multimedia objects in a manner that facilitates efficient decoding and reproduction of composite video images and audio segments (Applicants' specification, p. 7, lines 24-28).

The claims of the pending invention include novel features not shown in the cited references and that have already been pointed out to the Examiner. These features provide advantages over the prior art and dispense with prior art problems such as "structuring program content and program guide data to facilitate the acquisition and decoding of multimedia content of different data formats and from different sources" (Applicants' specification, p. 2, lines 3-6).

It is respectfully asserted that Claims 19 and 49 are each patentably distinct and non-obvious over the cited references in their own right. For example, the below-identified limitations of Claims 19 and 49 are not shown in any of the cited references, either taken alone or in any combination. Moreover, these Claims are distinct from each other in that they are directed to different items as recited in their respective preambles. For example, Claim 19 is directed to a method for decoding packetized program information to provide data content of a program, and

Claim 49 is directed to a method for providing packetized program information to provide data content of a program. Thus, for example, Claim 19 may be considered to be directed to decoding while Claim 49 may be considered to be directed to encoding. Accordingly, each claim represents separate features of the invention with respect to the prior art and to the other claims. As such, Claims 19 and 49 are separately patentable and are each presented for review in this appeal.

B. Whether Claims 19 and 49 are unpatentable under 35 U.S.C. §103 over Maa in view of Wasilewski.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art" (MPEP §2143.03, citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious" (MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

The Examiner rejected Claims 19-21 and 49-57 as being unpatentable under 35 U.S.C. 103 over Maa in view of Wasilewski. The Examiner contends that the cited combination shows all the elements recited in claims 19-21 and 49-57.

Taking the references one at a time, Maa is directed to an "Internet enhanced video system" (Maa, Title). In further detail, Maa provides "[a] system for accessing the Internet based on an Internet information pointer encoded in a video signal. The system includes a video display adapted to display a video portion of the video signal. The system also includes an Internet access device including a decoder adapted to extract the Internet information pointer

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encoded in the video signal, the access device being adapted to connect to the Internet to access the Internet based on the extracted Internet information pointer" (Maa, Abstract).

Wasilewski is directed to a "logical and composite channel mapping in an MPEG network" (Wasilewski, Title). In further detail, Wasilewski discloses "[t]wo additional structures for addition to the Digital Video Broadcasters (DVB) Service Information (SI) for implementation of the MPEG-2 Systems Standard ... are provided: the Logical Channel Table (LCT) and the Composite Channel Table (CCT). The LCT provides the mapping between a Logical Channel Number (LCN) representing a service and the transport stream/program number on which the service can be found. LCT entries may designate either simple convention channels of Composite Channels. ... Each entry in the CCT associates a Composite Channel Number (CCN) with a LCN and represents the "present" definition for the composite channel. A simple LCN is used as a key to the LCT to determine the transport stream ID and program number for the service components in the usual way" (Wasilewski, Abstract).

It is to be appreciated that only Wasilewski was relied upon to reject the above-identified limitations of Claims 19 and 49. In particular, the following sections of Wasilewski were cited by the Examiner against the above-identified limitations of Claims 19 and 49: column 1, lines 42-46 (hereinafter the "first cited section of Wasilewski"); column 1, line 59 to column 2, line 11 (hereinafter the "second cited section of Wasilewski"); column 5, lines 14-18 (hereinafter the "third cited section of Wasilewski"); column 2, lines 29-54 (hereinafter the "fourth cited section of Wasilewski"); column 9, lines 15-20 (hereinafter the "fifth cited section of Wasilewski"); and column 5, lines 28-33 (hereinafter the "sixth cited section of Wasilewski"). The Examiner has cited the first through third cited sections against the plurality of tables and control table recited

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in Claims 19 and 49, and has cited the fourth and fifth sections against the use of the table in forming an EPG, with some overlap.

It will be shown herein below that the limitations of Claims 19 and 49 reproduced herein are not shown in any of the cited references, either taken singly or in any combination, and that such Claims should be allowed including those dependent there from as identified in Section 7 herein.

B1. **The Cited References Do Not Teach or Suggest Forming a Program Guide For Display Using a Plurality of Partition Tables Having Program Specific Data Partitioned Therein and a Control Table for Acquiring and Re-assembling the Partitioned Program Specific Data Disposed in the Plurality of Partition Tables**

None of the cited references teach or suggest "a plurality of **partition tables having program specific data partitioned therein, a control table for acquiring and re-assembling the partitioned program specific data <u>disposed in the plurality of partition tables</u>, <u>forming a program guide for display, using the tables</u>**", as recited in Claim 19.

Moreover, none of the cited references teach or suggest "**partitioning program specific data into a plurality of partition tables; generating a control table for acquiring and re-assembling the program specific data <u>disposed in the plurality of partition tables</u>; <u>transmitting</u> the <u>plurality of tables and control table</u> in packets <u>for subsequent use in forming a program guide</u>**", as recited in Claim 49.

As noted above, the Examiner has cited the first through third cited sections against the plurality of tables and control table recited in Claims 19 and 49, and has cited the fourth, fifth,

and sixth sections against the use of the table in forming an EPG.

The first cited section of Wasilewski (i.e., column 1, lines 42-46) discloses that "[t]ransport stream packets ... begin with a 4-byte prefix containing the 13 bit packet ID (PID). The PID identifies, via four Program Specific Information (PSI) tables, the contents of the data contained in the transport stream packet payload".

Wasilewski further discloses that the PSI tables include the Network Information Table (NIT), the Program Association Table (PAT), the Program Map Table (PMT) and the Conditional Access Table (CAT), which are typically segmented into sections and inserted in transport stream packets (Wasilewski, column 1, lines 50-54).

The second cited section of Wasilewski (i.e., column 1, line 59 to column 2, line 11) discloses that the NIT specifies the mapping between transport stream IDs and network physical parameters. The PAT specifies the packet IDs (PIDs) for the packets which carry Program Map Tables (PMTs) for the components of one or more programs on a transport stream. In other words, the PAT associates a program number with the transport packets that carry the PMT for that program. The PMT specifies the PIDs and therefore which elementary streams and descriptors are associated **to form each program**. The PMT further indicates stream types, elementary PIDs, program numbers of "virtual channels", ... and the like of **packets that make up a particular program**.

The third cited section of Wasilewski (i.e., column 5, lines 14-18) discloses that service component demultiplexer 16 receives the transport stream from system data processor 14 as well as the information from PAT 38, PMT 40, and CAT 42 needed to demultiplex the service components of the selected program from the transport stream.

Moreover, Wasilewski further discloses that a transport stream consists of one or more

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programs (Wasilewski, col. 1, lines 27-28).

The fourth cited section of Wasilewski (i.e., column 2, lines 29-54) discloses that there are at least two other sources of information that might be **used in the tuning process**, namely, selections from Electronic Programming Guides (EPG) and direct "channel" selection by the subscriber. The section then goes on to generally describe EPGs.

The fifth cited section of Wasilewski (i.e., column 9, lines 15-20) discloses that the logical channel number (LCN) is provided directly by the subscriber using the remote control unit 26 or provided by the Electronic Programming Guide (EPG) 28 in response to subscriber selection of the desired movie using the remote control unit 26.

The sixth cited section of Wasilewski (i.e., column 5, lines 28-33) discloses that his invention "is designed to accommodate EPG service providers by providing a mechanism that allows service providers to freely move programs around to different frequencies and transport streams without having to constantly update the EPG service providers of such changes. ... [T]his is accomplished by introducing two additional structures for addition to the DVB Service Information (SI): the Logical Channel Table (LCT) 32 and the Composite Channel Table (CCT) 34. The LCT provides the mapping between the Logical Channel Number (LCN) representing a service and the transport stream/program number on which the service can be found. ... [T]he LCT 32 entry gives the home channel of the Composite Channel. ... [T]he home channel provides the CCT 34 to the decoder 10 **so that the tuner 12 can be retuned to the actual program designated in the CCT 34 for current viewing**" (Wasilewski, col. 5, lines 28-52).

Thus, in sum, the preceding cited sections of Wasilewski disclose that transport stream packets begin with a PID that identifies four PSI tables (i.e., NIT, PAT, PMT, and CAT), and that the four tables are used to identify which elementary streams and descriptors are associated **to**

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form each program. Moreover, the preceding cited sections of Wasilewski disclose that a logical channel number (LCN) may be provided by a program guide **in response to subscriber selection** of the desired movie using the remote control unit, and further that a Logical Channel Table (LCT), a Composite Channel Table (CCT), and the LCN are **used to tune to a desired program.**

However, the preceding cited sections of Wasilewski **do NOT disclose that the tables are used to form an electronic program guide (EPG) FOR DISPLAY.** An electronic program guide is not a program itself, but rather a description of programs such as the names of the programs, the start times of the programs (i.e., when broadcasting of the program is to commence), the durations of the programs and/or the end times of the programs, and so forth. **The EPG is for display to a user** (e.g., "forming a program guide for display", as recited in Claim 19 and as is generally know to those of ordinary skill in the related art). In contrast, in Wasilewski, some of the tables may be used by the remote control or EPG to tune to a particular program (see, e.g., Wasilewski, FIG. 2) but are not used to form the EPG for display as essentially recited in Claims 19 and 49. Accordingly, it is not surprising that Wasilewski does not teach the above-identified limitations relating to the formation of an EPG, since an EPG is not even shown in any of the Figures of Wasilewski; what is shown is simply a command received from an EPG but not an actual EPG.

Moreover, the preceding cited sections of Wasilewski do not disclose a control table for **acquiring and re-assembling the partitioned program specific data disposed in the plurality of partition tables.** For example, "[t]he PMT specifies the PIDs and therefore which elementary streams and descriptors are associated to form each program" (Wasilewski, col. 2, lines 1-3). However, the tables are disclosed as being segmented into sections and inserted into the transport

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stream packets. Upon receipt at the decoder, these tables are searched for the desired parameters and need not necessarily be stored locally since they are frequently retransmitted (see, e.g., Wasilewski, col. 1, lines 54-58). In contrast, the program specific data is partitioned and disposed in the plurality of partition tables, as recited in Claims 19 and 49. Moreover, it is this partitioned program specific data that is re-acquired and reassembled using the control table to form the EPG for display, as recited in Claims 19 and 49.

Thus, none of the cited references, either taken singly or in any combination, teach or suggest forming a program guide for display using a plurality of partition tables having program specific data partitioned therein and a control table for acquiring and re-assembling the partitioned program specific data disposed in the plurality of partition tables, as essentially recited in Claims 19 and 49. Accordingly, Claims 19 and 49 are patentably distinct and non-obvious over the cited references for at least the reasons set forth above. Therefore, withdrawal of the rejection and allowance of Claims 19 (and, thus, also Claims 20 and 21) and 49 (and, thus, also Claims 50-57) is earnestly requested.
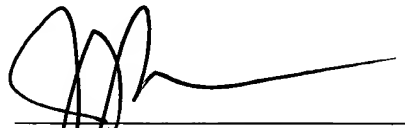
C.   **Conclusion**

At least the above-identified limitations of the pending claims are not disclosed or suggested by the teachings of the applied art references, either alone or in any combination. Accordingly, it is respectfully requested that the Board reverse the rejection of claims 19-21 and 49-57 under 35 U.S.C. §103.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicant's Deposit Account No.07-0832.

Respectfully submitted,

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APPENDIX I: CLAIMS

Claims 1-18 (Cancelled)

19. (Currently Amended) A method for decoding packetized program information to provide data content of a program, comprising the steps of:

identifying ancillary information in said packetized program information, said ancillary information including a plurality of partition tables having program specific data partitioned therein, a control table for acquiring and re-assembling the partitioned program specific data disposed in the plurality of partition tables, and information describing a multimedia image object associated with an image in said packetized program information, said multimedia object description information comprising,

(a) a location indicator identifying a location of a multimedia object for use in acquiring said multimedia object, and

(b) a type indicator identifying a multimedia object type for use in decoding said multimedia object; and

forming a program guide for display, using the tables;

acquiring and decoding said multimedia object using said multimedia object description information; and

formatting said multimedia object for display.

20. (Previously amended) The method according to claim 19, including the step of associating said multimedia object with one of (a) a video image, and (b) audio data.

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21. (Previously amended) The method according to claim 20, including the step of forming a composite image for display combining said multimedia object and at least one of, (a) an electronic program guide, (b) a video program, and (c) an Internet web page image.

22-48 (Cancelled)

Please add new Claims 49-57, as follows:

49. (New) A method for providing packetized program information to provide data content of a program, comprising the steps of:

partitioning program specific data into a plurality of partition tables;

generating a control table for acquiring and re-assembling the program specific data disposed in the plurality of partition tables;

incorporating, into any of tables, (a) a location indicator identifying a location of a multimedia object, and (b) a type indicator identifying a multimedia object type for use in decoding the multimedia object; and

transmitting the plurality of tables and control table in packets for subsequent use in forming a program guide that references the multimedia object and in acquiring the multimedia object using at least the location indicator and the type indicator.

50. (New) The method according to claim 49, further comprising the step of formatting the plurality of tables and the control table according to one of a selected media and protocol, in

preparation for said transmitting step.

51. (New) The method according to claim 49, Wherein the program specific information comprises at least one of network types, time segments, channel groups, transport stream channel groupings and event types.

52. (New) The method according to claim 49, wherein said location indicator is capable of identifying a location of said multimedia object in any of (a) said packetized program information from said first source, and (b) information derived from a second source different to said first source.

53. (New) The method according to claim 52, wherein said location indicator is capable of identifying a location of said multimedia object derived from said first source using any of (a) an MPEG compatible packet Identifier (P1D), and (b) an MPEG compatible Digital Storage Media code.

54. (New) The method according to claim 52, wherein said location indicator is capable of identifying a location of said multimedia object derived from said second source using any of (a) an Internet URL, (b) an Internet IP address, (c) an Email address, and (d) a telephone / fax / videophone number.

55. (New) The method according to claim 49, wherein said multimedia object type comprises at least one of, (a) a video segment or still image, (b) an audio segment, (c) text, (d) an

Internet web page or Internet data, (e) an advertisement, (f) an icon for user selection of a service, (g) an animation segment, (h) an Email message, (i) a user prompting indicator, and (j) a broadcast channel identification icon.

56. (New) The method according to claim 49, wherein said multimedia object description information further includes at least one of, (a) an object start time, (b) an object duration, (c) an object display mode, (d) an object version number, (e) an object formal, for use in decoding.

57. (Original) Apparatus according to claim 49, wherein said formatting step comprises the step of associating said multimedia object with one of (a) a video image, and (b) audio data, and said formatting means forms a composite image for display combining said multimedia object and at least one of, (a) an electronic program guide, (b) a video program, and (c) an Internet web page image.